

I. Remarks

Claims 1-16 are currently pending. Claims 4-9 are currently withdrawn pursuant to a restriction requirement issued by the Office.

Applicant notes with appreciation the Office's withdrawal of the species requirement in the instant application upon finding SEQ ID NOs: 3 and 5 free of the prior art. Applicant further appreciates the Office's reminder that the inventions of groups I and III may be eligible for rejoinder upon the finding of an allowable product claim.

Claims 1 and 9 have been amended with this response. Support for the amendments to the claims is found throughout the instant specification and particularly at paragraphs [0017], [0086], and [0102]. Claim 9 has been amended in light of rejoinder practice.

Claims 10-12 have been added with this response to claim additional embodiments of the ligand compositions provided by the instant invention. Support for new claims 10-12 is found throughout the instant specification and particularly at paragraphs [0026], [0097], and [0102] - [0104]. Entry and consideration of these claims is requested because Applicant believes that these embodiments properly belong in Group I, which is currently under prosecution.

Claims 13-16 have been newly added to claim additional embodiments of the instant invention directed to methods to generate immune effector cells using ligand compositions of the instant invention. Support for new claims 13-16 is found throughout the instant specification and particularly at paragraphs [0016], [0099], [0104], [0163]-[0164], [0189], and [0210] - [0212]. Their entry into the instant proceedings is respectfully requested. Applicant asserts that these embodiments are process claims eligible for rejoinder (similar to those of Group III, currently withdrawn) and would like to pursue said embodiments when allowable subject matter is found with respect to the product claims currently under prosecution.

II. Claim rejections under 35 U.S.C. § 112

Claims 1-3 stand rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses. The instant claims have been amended to remove the language "the same native ligand" and "said immunogenic ligand", which

Applicant asserts renders the claims definite. As such, Applicant respectfully requests withdrawal of the rejection.

III. Claim rejections under 35 U.S.C. § 101

Claims 1-3 stand rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicant respectfully traverses. Applicant has amended the instant claims as suggested by the Office. Withdrawal of the rejection is respectfully requested.

IV. Claim rejections under 35 U.S.C. § 102(b)

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Asano et al., J. Biol. Chem. 1997; 272(43); 27042-52. Applicant respectfully traverses. Asano et al. does not anticipate the instant claim because it does not teach a composition comprising at least two ligands where at least two are each selected from SEQ ID NOs: 3, 5, 7, 9 and 11.

The instant invention provides novel antigenic peptide ligands (SEQ ID NOs: 3, 5, 7, 9) that differ from the natural epitope (SEQ ID NO: 11) of the human cancer antigenic eukaryotic initiation factor 3 (eIF3). One embodiment of the instant invention provides compositions of two or more ligands, wherein the ligands are selected from SEQ ID NOs: 3, 5, 7, 9 and 11. As noted by the Office, the instant invention is correctly interpreted broadly to include compositions where the claimed peptide ligand is a portion of an immunogen's sequence. Applicant notes that the Office has found the ligand sequences, SEQ ID NOs: 3, 5, 7, or 9, free of the art. Therefore, a composition comprising one or more of SEQ ID NOs: 3, 5, 7, or 9 is also free of the art. Claim 1 has been amended to claim the specific embodiment where the claimed composition must contain at least two ligands where each of the said two ligands comprises one of SEQ ID NOs: 3, 5, 7, 9, or 11. Since Asano et al. teaches only SEQ ID NO: 11, the reference does not anticipate compositions with SEQ ID NOs: 3, 5, 7, or 9 as required by the instant claims. Therefore, Applicant respectfully requests withdrawal of the instant rejection.

Further, Applicant notes that another embodiment of the instant invention provides compositions comprising the novel ligands SEQ ID NOs: 3, 5, 7, or 9 as presently claimed by newly added claim 10. These compositions can further comprise the native epitope of SEQ ID NO: 11 as claimed in new claim 11. Applicant respectfully asserts that Asano et al. does not

anticipate these claims because it does not teach or disclose the instant ligands represented by SEQ ID NOs: 3, 5, 7, and 9.

V. Claim rejections under 35 U.S.C. § 103(a)

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Asano et al., J. Biol. Chem. 1997; 272(43); 27042-52 in view of U.S. Patent Serial No. 5,789,200.

Specifically, the Office concludes it would have been *prima facie* obvious to the skilled artisan at the time of filing to formulate the immunogen of Asano et al. in a pharmaceutically acceptable carrier as taught by U.S. Patent Serial No. 5,789,200. The Office concludes that U.S. Patent Serial No. 5,789,200 supplements Asano et al. by providing a teaching pharmaceutically acceptable carriers. Applicant respectfully traverses.

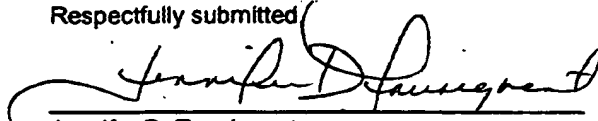
Claims 1-3 are not obvious in view of the prior art cited by the Office. The establishment of a *prima facie* case of obviousness requires, in part, that all claim limitations are taught or suggested by the references (MPEP 2143.03). Asano et al. teaches a composition with SEQ ID NO. 11 but does not teach or suggest the novel ligands SEQ ID NOs: 3, 5, 7, or 9. Asano et al. fails to provide a composition comprising at least two ligands where each of the said two ligands comprises one of SEQ ID NOs: 3, 5, 7, 9, or 11. Therefore, no *prima facie* case of obviousness has been established or can be established based on a combination of the prior art cited by the Office. Applicant respectfully requests withdrawal of the instant rejection.

VII. Conclusion

No fee is deemed necessary in connection with the filing of this communication.
However, if any fee is required, authorization is hereby given to charge the amount of any such
fee to Deposit Account No. 07-1074.

6/23/05
Date

Respectfully submitted



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